

Docket No. ATOTP0100USSerial No. 09/981,587

The specification has been amended to copy the subject matter of claim 9 into the specification. Since this subject matter was included in the application as filed, such copying from the claims to the specification does not constitute addition of new matter.

Applicant respectfully requests entry of the foregoing amendments.

Rejections Based on Izaki et al.

Claims 1-6 and 10-24 stand rejected as anticipated by Izaki et al., U.S. Patent No. 6,406,750 B1. Claims 7-8 stand rejected as obvious over Izaki et al. and further in view of Pendleton, US 5,110,355. Claim 9 stands rejected as obvious over Izaki et al. and further in view of Stamp et al., US 5,421,989. Applicant respectfully traverses the claim rejections for at least the following reasons.

Izaki et al disclose a process of electroless plating a substrate comprising preparing a substrate having a non-conductive portion to be electroless-plated; sensitizing the non-conductive portion by dipping the substrate in a sensitizing solution containing bivalent tin ions; activating the non-conductive portion by dipping the substrate in a first activator containing silver ions; activating the non-conductive portion by dipping the substrate in a second activator containing palladium ions; and electroless-plating the non-conductive portion thus activated by dipping the substrate in an electroless plating solution; wherein catalyst particles composed of silver nuclei and palladium nuclei each having an average particle size of 1 nm or less, at both the activating steps, adsorb on the non-conductive portion at a nuclei density of 2000 nuclei/ μm^2 or more. See, e.g., col. 3, lines 2-21.

Izaki et al. clearly require a step of applying Pd nuclei to a surface to which Ag nuclei have already been applied, and only after the Pd has been applied is the electroless plating step carried out. Thus, the catalyzed surface of Izaki et al contains Pd as well as Ag. There is neither disclosure nor suggestion in Izaki et al. that the Pd could be omitted, or that Ag alone could be used for catalyzing the surface for a subsequent step of electroless plating.

Applicant's claims 1 and 21 have been amended to specify that the catalyzed surface is substantially free of palladium. Applicant's claims 1 and 21 both require that the

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step of electroless plating is applied to the catalyzed surface formed by the step of contacting the sensitized surface with an aqueous solution or mixture containing a silver salt. New claim 25, like original claim 22, specifies that the aqueous solution or mixture containing a silver salt is substantially free of palladium, further emphasizing the distinction over Izaki et al.

For the foregoing reasons, Applicant respectfully submits that the presently pending claims fully patentably distinguish over Izaki et al. Since all the prior art rejections of Applicant's claims are based upon Izaki et al, and for the foregoing reasons Applicant's claims distinguish over Izaki et al, Applicant respectfully submits that Applicant's claims fully patentably distinguish over the prior art, and the rejections thereof have been overcome. Accordingly, Applicant respectfully requests the Examiner to reconsider and withdraw the rejections based on Izaki et al., including both the rejections under Section 102 and the rejections under Section 103.

Objection to Specification

The Examiner noted that the feature of claim 9 was not explicitly set forth in the specification. Herein, Applicant copied claim 9 into the specification, thus overcoming this objection. The Examiner is respectfully requested to withdraw this objection.

Objection to Claim 7

The Examiner noted that claim 7 does not end with a period. Herein, Applicant amended claim 7 to correct this obvious typographical error, thus overcoming this objection. The Examiner is respectfully requested to withdraw this objection.

CONCLUSION

For the foregoing reasons, Applicant respectfully submits that the claims of the above-identified application patentably distinguish over the prior art, and that the

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application therefore is in condition for allowance. Applicant respectfully requests notice to such effect.

The Commissioner is hereby authorized to charge the additional fee for one additional dependent claim to Deposit Account #18-0988, Docket No. ATOTP0100US.

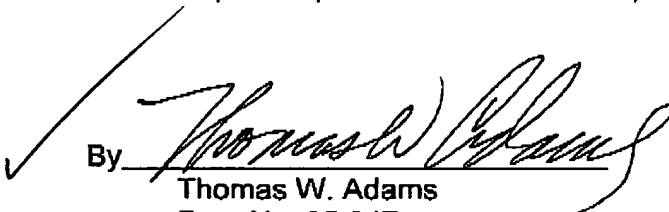
In the event issues remain in the prosecution of this application, Applicant requests that the Examiner telephone the undersigned attorney to expedite allowance of the application. Should a Petition for Extension of Time be necessary for the present Reply to the outstanding Office action to be timely filed (or if such a petition has been made and an additional extension is necessary) petition therefor is hereby made and, if any additional fees are required for the filing of this paper, the Commissioner is authorized to charge those fees to Deposit Account #18-0988, Docket No. ATOTP0100US.

Respectfully submitted,

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APPENDIX

The amended claims shown above have been amended as follows:

1. (Amended) A method of forming a conductive metal layer on a non-conductive surface, comprising:
providing a non-conductive surface;
contacting the non-conductive surface with an aqueous solution or mixture containing a stannous salt to form a sensitized surface;
contacting the sensitized surface with an aqueous solution or mixture containing a silver salt having a pH in the range from about 5 to about 10 to form a catalyzed surface substantially free of palladium; and
electroless plating the catalyzed surface by applying an electroless plating solution to the catalyzed surface.

7. (Amended) The method of claim 5, wherein the conditioner further comprises a reducing agent.

21. (Amended) A method of forming a conductive metal layer on a non-conductive surface, comprising:
providing a non-conductive surface;
applying a conditioner to the non-conductive surface to form a conditioned surface;
contacting the conditioned surface with an aqueous stannous salt to form a sensitized surface;
contacting the sensitized surface with an aqueous solution or mixture containing a silver salt at a pH in the range from about 6 to about 9 to form a catalyzed surface substantially free of palladium; and
electroless plating the catalyzed surface by applying an electroless plating solution to the catalyzed surface.

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